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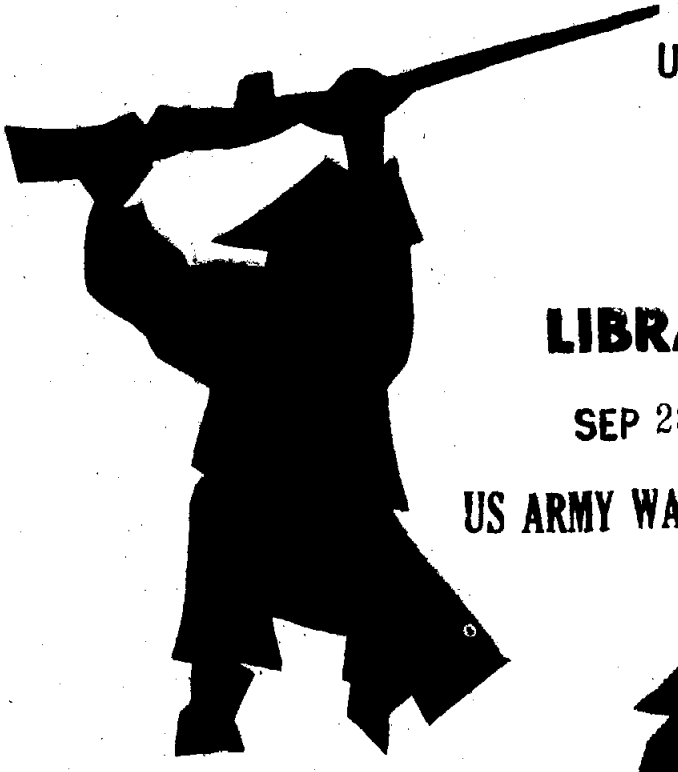

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COUNTERINSURGENCY

LESSONS LEARNED NO. 60

(DJSM-545-66)

DEFENSE AGAINST MORTAR/RECOILLESS RIFLE ATTACKS (U)

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HEADQUARTERS
UNITED STATES MILITARY ASSISTANCE COMMAND, VIETNAM
APO San Francisco 96243

MACJ343 10 September 1966

SUBJECT: Counterinsurgency Lessons Learned No 60: Defense Against Mortar/Recoilless Rifle Attacks (U)

TO: SEE DISTRIBUTION

1. (CMHA) INTRODUCTION:

a. This issue of Lessons Learned deals with the difficult problem of defending static installations against mortar and recoilless rifle attacks. Responses to recent mortar/recoilless rifle attacks indicate a growing capability to cope with this problem; however, the ideal solution is to prevent the attack if at all possible.

b. This Lessons Learned presents an analysis of attacks on airfields and other static installations. Its purpose is to review the circumstances surrounding some previous attacks in order to learn more about the enemy's tactics and the countermeasures that can be adopted by friendly commanders.

c. It is necessary that commanders be fully cognizant of the importance of prior coordination, control, fire support plans, quick reaction forces, and effective command procedures.

2. (CMHA) ENEMY TACTICS:

a. Recently a mortar and recoilless rifle attack was conducted against an air base in Vietnam. During the attack, a minimum of 240 rounds were fired by the enemy from 81 and 82mm mortars and recoilless rifles. A plot of the rounds indicates that the aircraft parking areas and other operating installations adjacent to taxiways and runways were the primary targets. The Viet Cong attack apparently was well planned in detail and executed vigorously without warning. No incidents or patterns were evident which could be considered specific indicators of the attack. The enemy attack can be rated a complete success. The enemy infiltrated the area often enough to reconnoiter and plan an attack which succeeded in damaging US aircraft and inflicting heavy personnel casualties. Success such as the one mentioned is only one of many conducted recently (chart 1).

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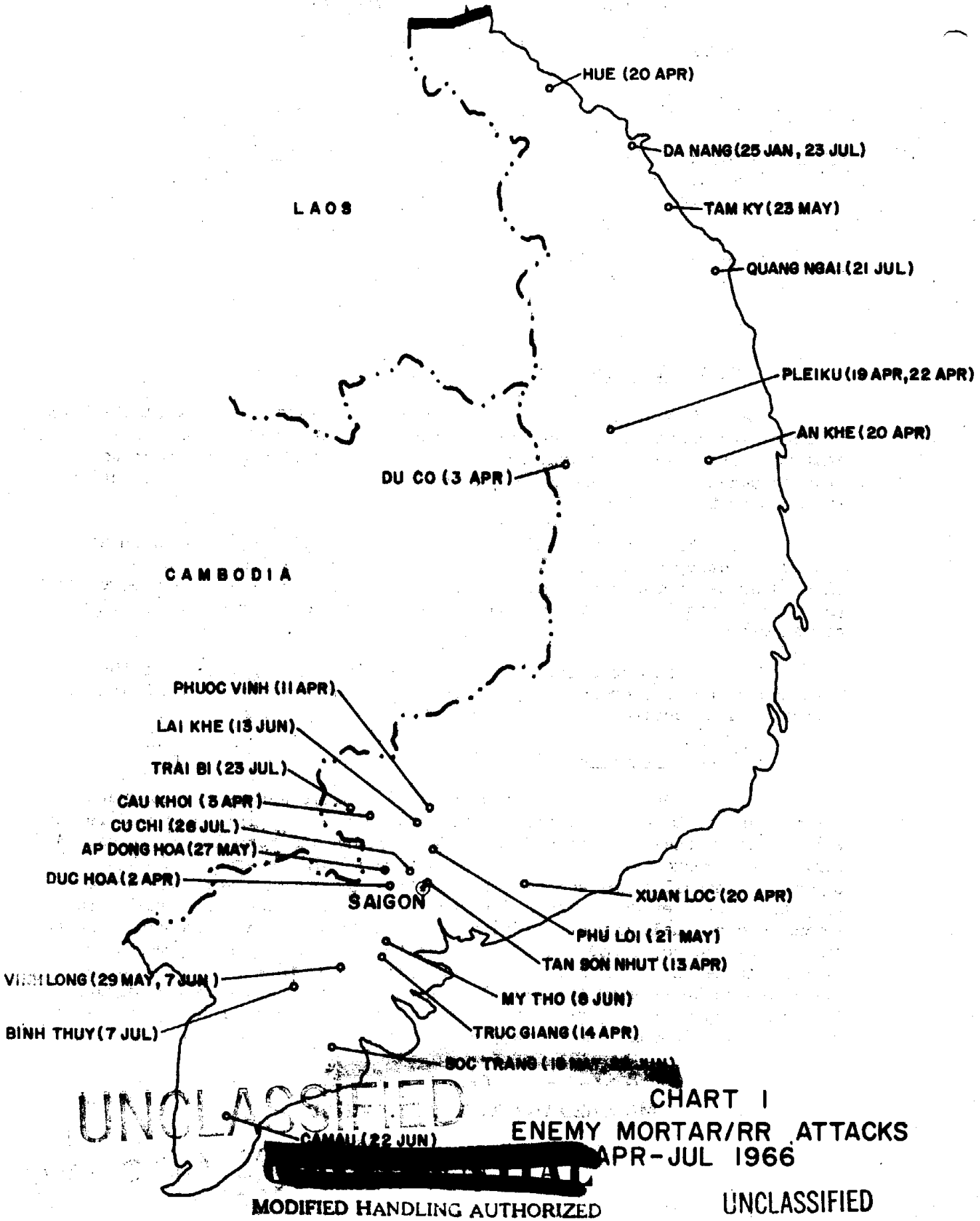
HUE (20 APR)
DA NANG (25 JAN, 23 JUL)
TAM KY (23 MAY)
QUANG NGAI (21 JUL)
LAOS
PLEIKU (19 APR, 22 APR)
AN KHE (20 APR)
DU CO (3 APR)
CAMBODIA
PHUOC VINH (11 APR)
LAI KHE (13 JUN)
TRAI BI (23 JUL)
CAU KHOI (3 APR)
CU CHI (26 JUL)
AP DONG HOA (27 MAY)
DUC HOA (2 APR)
SAIGON
XUAN LOC (20 APR)
PHU LOI (21 MAY)
TAN SON NHUT (13 APR)
VINH LONG (29 MAY, 7 JUN)
MY THO (8 JUN)
BINH THUY (7 JUL)
TRUC GIANG (14 APR)
SOC TRANG (16 MAY, 26 JUN)
CA MAU (22 JUN)

CHART I
ENEMY MORTAR/RR ATTACKS
APR-JUL 1966

b. The VC attacks are thoroughly planned and rehearsed. Through reconnaissance efforts and agents the enemy learns the exact location of prime targets and the operating schedules of the various base agencies and activities. Where day-to-day activities and dispositions have become stereotyped, the enemy has used such fixed patterns of activity to his advantage in planning and executing the attack. The attacks are executed with a determination and precision which indicates a complete understanding of the duties of each attacker. For example, a PW captured after the attack on Da Nang in Oct 65 stated that the attack was rehearsed six times and sand table classes were held to point out individual tasks.

c. Recoilless rifles are positioned to fire along the long axis of the airfield to take advantage of small deflection error and relatively large range dispersion of this weapon. Several positions are used to permit the enemy to continue firing when one position is knocked out. Positions are usually placed along a trail to facilitate withdrawal.

d. Most of the attacks have occurred between the hours of 2330 and 0230 on moonless nights. This time frame suggests that the enemy moves into position and withdraws under the cover of darkness.

e. The enemy has made use of aiming markers, directional guides and target strikes during the preparation phase of an attack. Rounds are well placed with no adjustments noted. Fire for effect commences with the first round.

3. (CMHA) DEFENSE PLANS:

a. External Defense Plan.

(1) The most reliable method for obtaining early warning of an attack is to establish a restricted area from the installation out to the range of 120mm mortars. It is not always possible to establish an ideal restricted zone around a base. The defense plan established at Soc Trang airbase provides a basic plan particularly worthy of mention (chart 2). The defense plan is designed with four circular areas around the airfield, the last one extending to 11,000 meters. The circular areas are divided into four quadrants. Each quadrant has pre-selected LZ's and artillery concentrations for use in case of an attack. The reaction company is billeted in barracks immediately adjacent to the airfield.

(2) A plan may have all the ingredients for rapid suppression of enemy fires; but immediate reaction does not preclude an attack. Aggressive patrolling within the circular "watch" area

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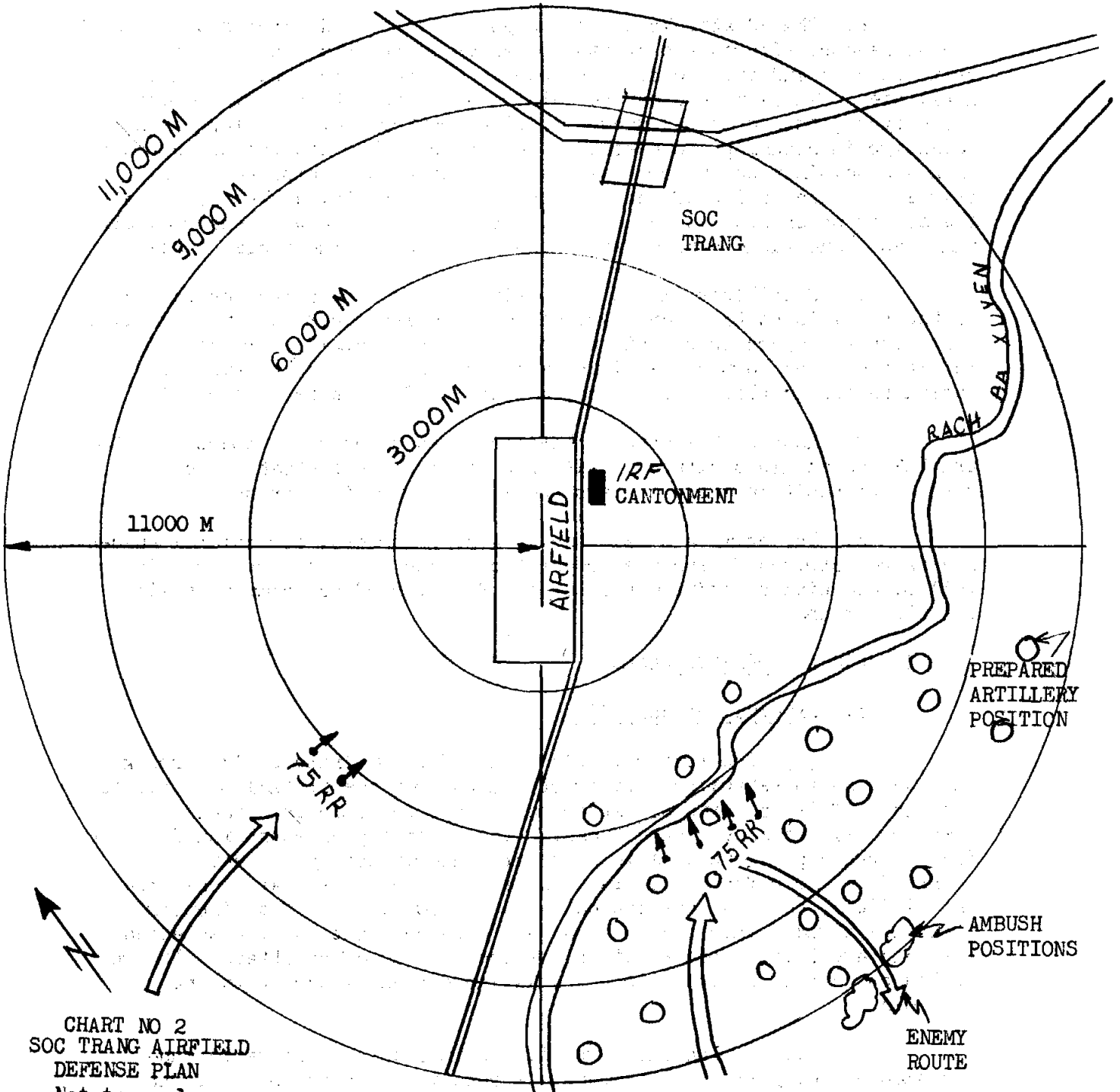

CHART NO 2
SOC TRANG AIRFIELD
DEFENSE PLAN
Not to scale

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discourages enemy mortar attacks. Patrolling should be done at night because the enemy normally moves into position after dark. Proof of the need for more aggressive patrolling is in the records of previous attacks. In no instance was an attack discovered by a patrol while the enemy was preparing or moving into firing position.

b. Internal Defense. It is to be emphasized that the enemy knows before hand where targets are located, and in some instances the operating schedules. To reduce the enemy's knowledge, one airbase, after a devastating attack, instituted new passive defense measures and improved others. These included:

(1) Dispersal of personnel and valuable equipment such as aircraft.

(2) Construction of revetments around aircraft and other vulnerable equipment and supplies.

(3) Construction of primary and alternate gun positions.

(4) Preparation of individual protective emplacements.

(5) Varying placement of sentries.

(6) Random use of internal vehicular patrols.

(7) Improvement of entry and exit screening procedures.

(8) Establishment of effective intelligence and reporting procedures.

(9) Timely and accurate reporting by sentries and elements engaged in defense of the airfield.

(10) Establishment of effective psychological warfare and civic action programs to secure civilian cooperation.

(11) Utilization of civilians and police in the area to enhance the intelligence effort.

4. (CMHA) INTELLIGENCE: Intelligence and response to intelligence are key factors in countering a mortar attack. The detailed reconnaissance, deliberate preparation of firing positions, and movement of weapons and materiels makes the enemy susceptible to a concentrated intelligence effort.

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Events that have occurred prior to past attacks can now be recognized as indicators of an impending enemy attack. Some examples are as follows:

a. Reports of unidentified Vietnamese in the vicinity of an airfield for a number of mornings prior to the attack and the herding of cattle, by men, close to the actual point of penetration of the airfield could have been interpreted as a warning of an attack. (At no other time had men herded the cattle; normally it is done by women and children).

b. In one instance a security patrol at about 2300 hours surprised a party of Vietnamese carrying a basket near the airstrip. The Vietnamese dropped the basket and ran. The basket was not searched until after daylight the next morning. It was found to contain five fuzed 81mm mortar rounds plus food and clothing. In the meantime, an attack was made on the airbase during the early morning hours.

c. A marked increase in the number of harassments, acts of terrorism, ambushes and small scale attacks in the surrounding areas have preceeded some attacks.

d. Newly prepared entrenchments or firing positions within mortar or recoilless rifle range of the installation have been observed prior to an attack.

e. Apparent awareness of impending attacks by local inhabitants has been noticed. Prior to one attack a report was made by a national policeman at 1700 hours to the CO of the Army of Republic of Vietnam (ARVN) compound. The policeman stated that 100 civilians were crossing the river by boat from north to south into the nearby city on orders from the VC who told them to evacuate the area. An attack was made on the U.S. advisors compound at 0200 hours the next morning.

5. (CMHA) DETECTION OF AN ATTACK:

a. The majority of enemy mortar/recoilless rifle attacks last no longer than 20 minutes; however, this is sufficient time to cause considerable damage. Immediate detection of the firing positions is essential if the duration of the attack is to be shortened.

b. Where possible, continuous aerial observation should be maintained during the hours of darkness with particular interest from 2200 hours until one hour before the beginning of morning nautical twilight. This time period is considered to be the most likely time of attack. The following attacks illustrate the requirement for continuous aerial observation: [redacted]

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(1) During an attack on Soc Trang at 0150 hours, 22 Jun 66, a UHID helicopter and an O1F fixed wing aircraft were airborne. The O1F aircraft pilot spotted the initial enemy firing and dropped a flare above the gun position. Before the flare deployed and ignited, which takes about 40 seconds, seven more rounds landed. The attack lasted only five minutes. Without the immediate detection of the firing positions, additional rounds would have been fired with a corresponding increase in the damage to equipment.

(2) In the mortar attack on Vinh Long on 7 Jun 66, the armed aircraft that had been acting as aerial observer for the base were refueling at the time of the attack. They immediately scrambled, and brought direct fire on the VC positions. In this case the defending elements took immediate action; however, the need for continuous surveillance was evident.

(3) A helicopter fire team on reconnaissance at the Vinh Long airfield spotted the first rounds as they were fired toward the base on 29 May 1966. The team passed the alert to the airfield tower and took the enemy positions under fire. An AC-47 flare ship was diverted from the nearby Can Tho area. The remaining armed ships on the airfield scrambled and were firing on the positions within six minutes, at which time enemy action ceased.

c. In addition to aerial observation, ground detection means which can include improvised facilities should be used to provide surveillance of the surrounding terrain. The capability of immediately reporting the location or the direction of the flash of the observed firing positions must be inherent to the detection means. Illustrations of these possibilities are:

(1) The countermortar radar should scan the most vulnerable or likely direction from which an attack may come. In some instances where the AN/MPQ-4A radar has been fully operational, manned by trained personnel and oriented in the direction of the attack, it has proved effective in locating hostile mortar positions. At the Pleiku air base, during the attack of 22 April 1966, one of the two mortar positions was located by radar; however, the radar has not proved effective against the recoilless rifle.

(2) The Starlight Scope offers possibilities for detection of enemy positions. On the night of 7 Jan 66 the Starlight Scope was used by Detachment A-412, 5th Special Forces Group to detect VC actions. Using the scope, Special Forces personnel observed the VC preparing mortar positions and a command post approximately 1500 meters north of the

compound. These positions were cleverly concealed and were so constructed as to be well protected against countermortar fires. Special Forces personnel maintained the VC construction team under surveillance each night until the emplacements were apparently completed and the following day a demolition patrol destroyed the positions.

(3) Sufficient towers, adequately manned, have proved to be successful in detecting enemy mortar positions. By having two or more towers, each equipped with a simple, home made alidade, an intersection can be made to locate enemy gun positions.

6. (CMHA) COUNTERMEASURES AND REACTION:

a. Enemy attacks, almost without exception, are well planned and indicate a comprehensive knowledge of troop and materiel dispositions. Countermeasures to prevent enemy surveillance of the target area and means of discouraging his approach to within range of indirect fire weapons is necessary if attacks are to be minimized. Experience has shown various techniques are relatively successful. One technique is the illumination of the surrounding area using aerial flareships, searchlights and mortar/artillery.

b. Variation in placement of sentries, ambushes, listening posts and patrol routes, and their employment on random schedules will reduce the enemy's ability to conduct surveillance by denying him freedom of entry into the area.

c. The surveillance of prime target areas is apparently accomplished by personnel having access to the installation. Exacting and detailed screening of the local national laborers to insure proper identity and loyalty will reduce the enemy's surveillance capability and his knowledge of the key installations and their locations within the defensive area. Daily entry and exit screening must not be relaxed.

d. Once an enemy attack is launched, return fire must be delivered immediately if the destructive effect of the attack is to be minimized. This can be accomplished by preselecting concentrations on likely mortar positions. These concentrations are assigned by friendly mortar and artillery units and are fired automatically. When not engaged in other missions the artillery and mortar crews are laid on these concentrations to facilitate rapid response.

e. As mentioned earlier, the enemy normally establishes several positions so that maximum fire can be placed on the target. To reduce the time that the enemy can place effective fire on a target, ground alert

helicopters must be responsive immediately as indicated by the following:

(1) At Tan Son Nhut, the average enemy fire was 19 rounds per minute, or 95 rounds in five minutes which was the scramble time for aircraft.

(2) In the attack on Soc Trang on 18 May 66, armed helicopters scrambled within 3 minutes. This was in accordance with the defense plan, but sufficient rounds to cause some damage fell in 3 minutes.

f. As noted in the above accounts it is imperative that a ground reaction force be established and rehearsed to react promptly. The following illustrations amply prove the point:

(1) In the attack on Vinh Long on 29 May 66, the 9th ARVN Division quickly employed a forty man reaction force. They were airlanded to block the VC's escape. An early morning ground operation toward the blocking position netted 13 VC KIA and one captured.

(2) Conversely, in the attack on another airfield, aircraft were made available to the unit commander but he declined to employ a reaction force until daybreak. The VC escaped.

g. Aircraft parking areas are primary targets of enemy attacks. Ground alert aircraft parked in the normal aircraft parking areas have been damaged and unable to perform their alert missions. Aircraft should be repositioned frequently to prevent enemy registration on one area. Repositioning should be done at random and in response to local intelligence.

h. The relatively short duration of mortar/recoilless rifle attacks requires immediate response in order to minimize effects of the attack by forcing the enemy to break contact. To accomplish this in one area a fire control and clearing radio net was established for the purpose of announcing hostile mortar/recoilless rifle fire to all fire units with an indirect fire capability in the defense complex. In the attack on the district headquarters at AP Dong Hoa in Hau Nghia province on 27 May 66, communications were knocked out, leaving the defending elements with no means of effecting a coordinated defense. The defenders concluded that a joint TOC would have enhanced the defense effort.

i. The VC invariably attempt to knock out the communications complex. In many attacks the VC have been successful. In the attack on AP Dong Hoa, mentioned above, the Special Forces used their communications

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to request air and flare support. On 2 April 1966 in an attack on another installation there was a critical lack of control for armed helicopters and supporting artillery due to the disruption of communications. In addition, higher headquarters was not informed and consequently could not influence the battle. These incidents emphasize the desireability of having alternate and multiple means of communications.

7. (CMHA) SUMMARY:

a. The Viet Cong successes in launching mortar and recoilless rifle attacks, though limited in total effect, have been sufficient to encourage similar efforts in the future. US and ARVN airfields provide the VC with a means of inflicting heavy equipment losses and in some cases high personnel casualties. Experience has shown that the Viet Cong will continue to exploit a proven tactic or technique until it is forcefully, effectively, and repeatedly countered. The ability of friendly elements to counter enemy attacks lies in the application of lessons learned from previous attacks.

b. Friendly elements must realize that the enemy is very methodical and plans his attacks with precision. The enemy normally employs mortars and recoilless rifles at night from positions that enable him to fire for effect on the long axis of an airfield at pre-selected targets.

c. To prevent an attack, a good internal passive defense and an external plan which includes aggressive patrol action beyond the range limits of the enemy weapons is essential. The implementation of a sound intelligence reporting system which will provide indications of an attack will enhance the overall effort to reduce the chances of an attack.

d. Enemy attacks seldom last more than 20 minutes. Therefore, time is of the essence in its detection. Constant surveillance by aerial and ground observation and use of electronic devices will enable defense elements to detect enemy fires immediately. Once the firing is detected immediate deployment of armed aircraft, artillery, and flareships will force the enemy to cease fire and withdraw. Immediate airmobile reaction

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by a ground force to preselected ambush positions along the route of withdrawal may result in elimination of the enemy. Each successful counteraction will reduce the frequency of enemy mortar and recoilless rifle attacks.

FOR THE COMMANDER:

E. W. GANNON
Major, AGC
Asst AG

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